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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,680	11/18/2003	Chih-Kun Chen	10113161	4546

34283 7590 03/24/2006

QUINTERO LAW OFFICE
1617 BROADWAY, 3RD FLOOR
SANTA MONICA, CA 90404

EXAMINER

AKANBI, ISIAKA O

ART UNIT	PAPER NUMBER
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2877

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,680

Applicant(s)

CHEN, CHIH-KUN

Examiner

Isiaka O. Akanbi

Art Unit

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The examiner approves the drawings filed 18 November 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Esrig et al. (5,640,237).

As regard to claim 1, Esrig discloses a method for real-time detection of wafer defects comprising of the following:

providing a desired wafer (10) before or after a predetermined fabrication step and obtaining optical information thereof (col. 2, line 51-67) and comparing and analyzing the optical information of the desired wafer with corresponding reference information for instantaneously detecting possible wafer defects, wherein a predetermined action is performed upon detection of wafer defects (col. 5, line 23-34).

As to claim 2, according to claim 1, Esrig discloses wherein an optical detecting unit (18) is used to detect the desired wafer and obtaining optical information thereof, and a process control unit is used for analyzing the optical information of the desired wafer (fig. 1)(col. 4, line 37-55).

As to claims 3 and 12, Esrig discloses wherein the optical detecting unit (18) is an image capture device.

As to claims 4 and 13, Esrig discloses wherein the image capture device (18) is constituted by at least one charge-coupled device (CCD) to gather film color information of the desired wafer (col. 4, line 52-53)(col. 6, line 50-54).

As to claims 5 and 14, Esrig discloses wherein the film color information is compared with corresponding reference film color information to instantaneously determine whether wafer defects are present (fig. 1)(col. 5, line 23-34)(col. 6, line 31-49).

As to claims 6 and 15, Esrig discloses further the step of illuminating the desired wafer with an inspection light (16) during the step of obtaining optical information about the desired wafer (fig. 2)(col. 3, line 54-56).

As to claims 7, 8 and 17, Esrig discloses wherein the optical detecting unit is an optical intensity measuring device for gathering reflection intensity information from the inspection light illuminating the desired wafer and compared with a corresponding reference light intensity to instantaneously determine whether defects are present (col. 2, line 51-62)(col. 5, line 55-60).

As to claims 9 and 18, Esrig discloses wherein the predetermined action comprising the step of halting the subsequent fabrication steps of the desired wafer (fig. 6)(col. 6, line 30-49).

As to claims 10 and 19, Esrig discloses wherein the predetermined action comprises the step of triggering an alarm (54/56) trigger to sound an alert signal (col. 6, line 9-12).

As regard to claim 11, Esrig discloses a device for real-time detection of wafer defects comprising of the following:

an optical detection device (18) for detecting defects in a desired wafer (10) after different processes or before processing for gathering optical information thereof and a process control unit (46) for comparing and analyzing the optical information with corresponding reference information to instantaneously detect possible wafer defects, wherein a predetermined action is performed by the process unit when detecting possible wafer defects (figs. 1 and 2)(col. 2, line 51-62)(col. 5, line 24-col. 6, line 1-49).

Additional Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references listed in the attached form PTO-892 teach of other prior art apparatus/method for real-time detection of wafer defects that may anticipate or obviate the claims of the applicant's invention.

Conclusion

Fax/Telephone Information

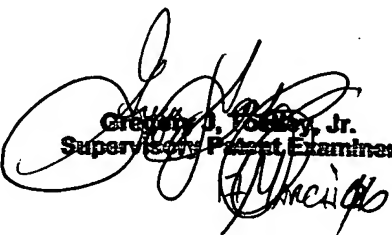
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Isiaka Akanbi whose telephone number is (571) 272-8658. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley Jr. can be reached on (571) 272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Isiaka Akanbi

March 13, 2006


Gregory J. Toatley, Jr.
Supervisory Patent Examiner